

Substitute for Form PTO-1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER 033300-012
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/550460
INTERNATIONAL APPLICATION NO. PCT/EP2003/013670	INTERNATIONAL FILING DATE DECEMBER 4, 2003	PRIORITY DATE CLAIMED MARCH 31, 2003
TITLE OF INVENTION METHOD FOR IDENTIFYING THE ROTATION OF A STEPPER MOTOR DRIVING AT LEAST ONE HAND OF A CLOCK		
APPLICANT(S) FOR DO/EO/US 1) HANNA BRUMMACK, 2) WOLFRAM HODAPP		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <input checked="" type="checkbox"/> This is a FIRST submission to items concerning a filing under 35 U.S.C. 371. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (22) indicated below. <input checked="" type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31). <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). <input checked="" type="checkbox"/> has been communicated by the International Bureau. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> <input checked="" type="checkbox"/> is attached hereto. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). <input type="checkbox"/> have been communicated by the International Bureau. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. <input type="checkbox"/> have not been made and will not be made. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). 		
<p>Items 11 to 21 below concern document(s) or Information Included:</p> <ol style="list-style-type: none"> <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. <input checked="" type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. <input checked="" type="checkbox"/> A substitute specification. <input type="checkbox"/> A change of power of attorney and/or address letter. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 C.F.R. 1.821 - 1.825. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4). <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). <input checked="" type="checkbox"/> Other items or information: <u>PUBLICATION WO 2004/088438</u> <hr/> <hr/> <hr/> <hr/> <hr/>		

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<p>21. <input checked="" type="checkbox"/> Applicant(s) requests that the published application include the following assignment information: <u>JUNGHANS UHREN GmbH, Schramberg, Germany</u></p> <hr/> <hr/> <hr/>																																																																																																																															
<p>22. <input checked="" type="checkbox"/> The following fees are submitted:</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <td colspan="4">Basic Filing Fee (1631)</td> <td style="text-align: right;">\$ 300.00</td> </tr> <tr> <td colspan="4">Surcharge of \$130.00 (1617) for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).</td> <td></td> </tr> <tr> <th style="text-align: left;">CLAIMS</th> <th style="text-align: left;">NUMBER FILED</th> <th style="text-align: left;">NUMBER EXTRA</th> <th style="text-align: left;">RATE</th> <th style="text-align: left;">\$</th> </tr> <tr> <td>Total Claims</td> <td>12</td> <td>-20 =</td> <td>0</td> <td>* \$50.00 (1615)</td> </tr> <tr> <td>Independent Claims</td> <td>2</td> <td>-3 =</td> <td>0</td> <td>* \$200.00 (1614)</td> </tr> <tr> <td colspan="4">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+ \$360.00 (1616)</td> </tr> <tr> <td colspan="4">Examination Fee</td> <td>+ \$200.00 (1633)</td> </tr> <tr> <td colspan="4">Search Fee</td> <td>+ \$500.00 (1632)</td> </tr> <tr> <td colspan="4">App. Size Fee (add \$250.00 for each add'l 50 sheets exceeding 100 sheets)</td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right;">TOTAL OF ABOVE CALCULATIONS</td> <td style="text-align: right;">\$ 1,000.00</td> </tr> <tr> <td colspan="4"><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.</td> <td style="text-align: right;">+ \$ 0.00</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">SUBTOTAL =</td> </tr> <tr> <td colspan="4">Processing fee of \$130.00 (1618) for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).</td> <td style="text-align: right;">\$ 1,000.00</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">\$ 0.00</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">TOTAL NATIONAL FEE =</td> </tr> <tr> <td colspan="4">Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 (8021) per property +</td> <td style="text-align: right;">\$ 40.00</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">TOTAL FEES ENCLOSED =</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">\$ 1,040.00</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Amount to be refunded :</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">charged :</td> </tr> <tr> <td colspan="5"> <p>a. <input checked="" type="checkbox"/> A check in the amount of <u>\$ 1,040.00</u> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. <u>02-4800</u> in the amount of _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>02-4800</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Charge _____ to credit card. Form PTO-2038 is attached.</p> </td> </tr> <tr> <td colspan="5" style="text-align: center; padding-top: 10px;"> <p>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</p> </td> </tr> <tr> <td colspan="5" style="text-align: center; padding-top: 10px;">  SIGNATURE </td> </tr> <tr> <td colspan="5" style="text-align: center; padding-top: 10px;"> <u>Alan E. Kopecki</u> NAME </td> </tr> <tr> <td colspan="5" style="text-align: center; padding-top: 10px;"> <u>25,813</u> <u>September 26, 2005</u> REGISTRATION NO. DATE </td> </tr> </table>			Basic Filing Fee (1631)				\$ 300.00	Surcharge of \$130.00 (1617) for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	Total Claims	12	-20 =	0	* \$50.00 (1615)	Independent Claims	2	-3 =	0	* \$200.00 (1614)	MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$360.00 (1616)	Examination Fee				+ \$200.00 (1633)	Search Fee				+ \$500.00 (1632)	App. Size Fee (add \$250.00 for each add'l 50 sheets exceeding 100 sheets)					TOTAL OF ABOVE CALCULATIONS				\$ 1,000.00	<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. 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Translation • Graphics • Web Design

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CERTIFICATION

June 27, 2005

This is to certify that I am familiar with the German and English languages and that the attached English translation of the German PCT/EP2003/013670 is true and accurate to the best of my knowledge and belief.


Peter Schwarz
Translator

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(71) Applicant (for all contracting states except the US):

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For explanation of the two-letter codes and other abbreviations, see the explanations at the beginning of each regular edition of the PCT Gazette ("Guidance Notes on Codes and Abbreviations")

(54) Title: METHOD FOR IDENTIFYING THE ROTATION OF A STEPPER MOTOR DRIVING AT LEAST ONE HAND OF A CLOCK

(57) Abstract: The invention relates to a method for identifying the rotation of a stepper motor comprising a rotor provided with a motor coil and driving at least one hand of a clock. According to said method, a drive voltage pulse (1) and a first detection voltage pulse (3) are emitted from the motor coil, and the position of the rotor is determined on the basis of a first pulse response to the first detection voltage pulse (3). According to the invention, a second detection voltage pulse (4) with a polarity opposing that of the first detection voltage pulse (3) is emitted from the motor coil, and a second pulse response to the second detection voltage pulse (4) is also used to determine the position of the rotor. A stabilization voltage pulse (2) with a polarity opposing that of the drive voltage pulse (1) and preceding the first detection voltage pulse (3) can also be emitted from the motor coil.

WO 2004/088438 A1

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